

Use Attainability Analysis

for

WBID 0948 Tributary to Strobel Branch

Submitted by
SES, Inc.

To
Missouri Department of Natural Resources
Water Protection Program

Date Received: June 3, 2007

Field Data Sheets for Recreation Use Stream Surveys
Data Sheet A - Water Body Identification
(For water body being surveyed)

Water Body Information

Water Body Name:	Tributary to Stroebe Branch	WBID:	948
8 digit HUC code:	10300102	County:	Cole
Upstream Legal Description	45N 14W 36		
Downstream Legal Description	44N 14W 1		
Number of Sites Evaluated	3		
List all site numbers, listed upstream to downstream	3,2,1		

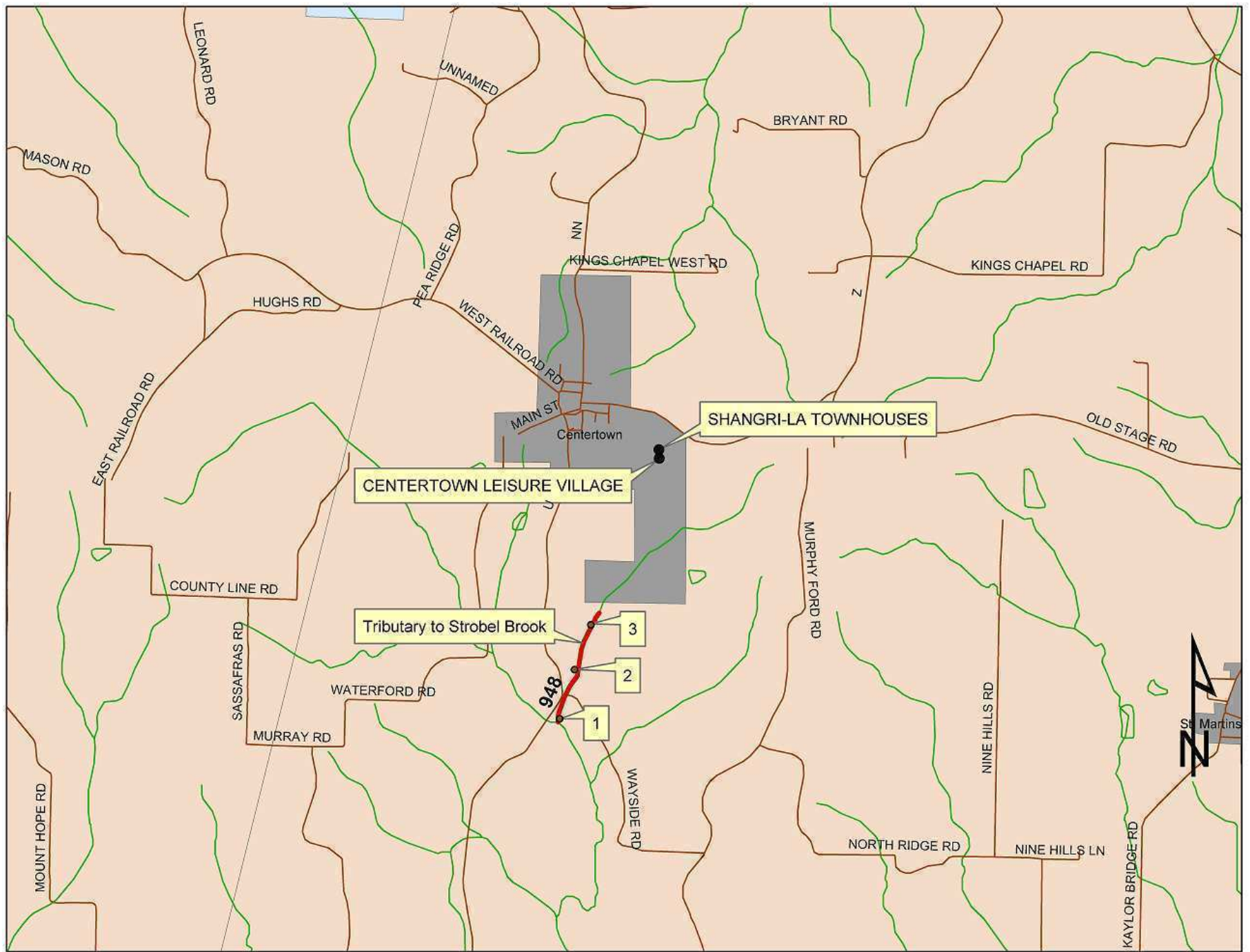
Discharger Facility Information

Discharger Facility Name(s):	Centertown Leisure Village, Shangri-La Townhouses
Discharger Permit Number(s):	MO0100552, MO0125296

UAA Surveyor

Name of Surveyor:	Gilisa Gould	Telephone Number:	(913)307-0054 Ext. 19
Organization/Employer:	SES, Inc.		
Position:	Field Team Leader		

Signed: _____ Date: _____



Field Data Sheets for Recreational Use Stream Surveys
Data Sheet B - Site Characterization
(must be completed for each site)

WBID 948
 Site # 1

Date and Time: 5/16/2007 15:45

Current Weather Conditions clear

Weather Conditions for Past 10 days: Rained on 5/10 & 5/15, 1 inch total

Drought Conditions? No

Site Location (e.g. road crossing) Upstream of where this water body connects to Stroebel Branch

GPS Mark: 32

Upstream Photo 68 Downstream Photo 69

Uses Observed (Uses actually observed at time of survey) Circle

Swimming	Skin Diving	SCUBA diving	Tubing
Water Skiing	Wind Surfing	Kayaking	Boating
Wading	Rafting	Hunting	Trapping
Fishing	None of the Above	Other	

Surrounding Conditions

City/county parks	Playgrounds	MDC conservation lands	Urban areas
Campgrounds	Boating accesses	State parks	National Forests
Nature trails	Stairs/walkway	No trespass sign	Fence
Steep slopes	None of the Above	Other	

Indications of Human Use

Roads	Rope swings	Foot paths/prints	Dock/platform
Livestock Watering	RV/ATV Tracks	Camping Sites	Fire pit/ring
NPDES Discharge	Fishing Tackle	Other:	None of the Above

WBID # 948 **Site #** 1
Mark # 32 **Dissolved Oxygen (ppm)** 7.8
Upstream Views Physical Dimensions: Is there any water present at this view? yes

If so, is there an obvious current? yes

Select one of the following channel features:

	% of Channel Feature				
Riffle	36				
Run	0				
Pool	64				

Downstream View's Physical Dimensions: Is there any water present at this view?

If so, is there an obvious current?

Substrate:

% Cobble	% Gravel	% Sand	% Silt
47	53	0	0
% Mud/Clay	% Bedrock		
0	0		

Aquatic Vegetation: (Note amount of vegetation or algal growth at the assessment site)

Water Characteristics

Odor	Sewage	Musky	Chemical	None	Other
Color	Clear	Green	Gray	Milky	Other
Bottom Deposit	Sludge	Solids	Fine Sed.	None	Other
Surface Deposit	Oil	Scum	Foam	None	Other

Data Sheet C: Cross-Sectional Depth Measurements (for estimation of median depth)
(Median Depth Shown in Bold)

Site # 1

Mark # 32

0948_Tributary to Strobel_Cole

	Depth (m)
Transect 1	0.00
Substrate:	0.00
gravel	0.00
Water Clarity:	0.05
clear	0.05
Channel Feature:	0.05
riffle	0.00
Channel Width:	0.00
1 yard	0.00
0.00	0.00
Transect 2	0.35
Substrate:	0.45
gravel	0.50
Water Clarity:	0.50
clear	0.35
Channel Feature:	0.30
pool	0.20
Channel Width:	0.10
5 yards	0.10
0.33	0.05
Transect 3	0.00
Substrate:	0.00
cobble	0.00
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.00
riffle	0.00
Channel Width:	0.05
2 yards	0.05
0.00	0.00
Transect 4	0.00
Substrate:	0.00
cobble	0.00
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.00
riffle	0.00
Channel Width:	0.00
3 yards	0.00
0.00	0.00

	Depth (m)
Transect 5	0.05
Substrate:	0.05
cobble/gravel	0.05
Water Clarity:	0.10
clear	0.10
Channel Feature:	0.05
pool	0.00
Channel Width:	0.05
4 yards	0.05
0.05	0.05
Transect 6	0.10
Substrate:	0.20
cobble/gravel	0.20
Water Clarity:	0.20
clear	0.20
Channel Feature:	0.20
pool	0.15
Channel Width:	0.15
5 yards	0.20
0.20	0.20
Transect 7	0.05
Substrate:	0.05
gravel	0.15
Water Clarity:	0.15
clear	0.20
Channel Feature:	0.25
pool	0.35
Channel Width:	0.35
4 yards	0.30
0.20	0.20
Transect 8	0.00
Substrate:	0.05
gravel	0.05
Water Clarity:	0.15
clear	0.15
Channel Feature:	0.25
pool	0.15
Channel Width:	0.30
4 yards	0.25
0.15	0.15

	Depth (m)
Transect 9	0.00
Substrate:	0.05
cobble/gravel	0.05
Water Clarity:	0.10
clear	0.10
Channel Feature:	0.15
pool	0.15
Channel Width:	0.20
2 yards	0.20
0.13	0.20
Transect 10	0.00
Substrate:	0.05
cobble/gravel	0.10
Water Clarity:	0.15
clear	0.20
Channel Feature:	0.20
pool	0.15
Channel Width:	0.10
4 yards	0.05
0.10	0.05
Transect 11	0.00
Substrate:	0.00
cobble	0.00
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.00
riffle	0.00
Channel Width:	0.00
4 yards	0.10
0.00	0.00
Site Median	Site Maximum
0.05	0.50

Field Data Sheets for Recreational Use Stream Surveys
Data Sheet B - Site Characterization
(must be completed for each site)

WBID 948
 Site # 2

Date and Time: 5/16/2007 16:27

Current Weather Conditions clear

Weather Conditions for Past 10 days: Rained on 5/10 & 5/15, 1 inch total

Drought Conditions? No

Site Location (e.g. road crossing) midway

GPS Mark: 33

Upstream Photo 71 Downstream Photo 70

Uses Observed (Uses actually observed at time of survey) Circle

Swimming	Skin Diving	SCUBA diving	Tubing
Water Skiing	Wind Surfing	Kayaking	Boating
Wading	Rafting	Hunting	Trapping
Fishing	None of the Above	Other	

Surrounding Conditions

City/county parks	Playgrounds	MDC conservation lands	Urban areas
Campgrounds	Boating accesses	State parks	National Forests
Nature trails	Stairs/walkway	No trespass sign	Fence
Steep slopes	None of the Above	Other	

Indications of Human Use

Roads: pic #72	Rope swings	Foot paths/prints	Dock/platform
Livestock Watering	RV/ATV Tracks	Camping Sites	Fire pit/ring
NPDES Discharge	Fishing Tackle	Other:	

WBID # 948 **Site #** 2
Mark # 33 **Dissolved Oxygen (ppm)** 5.9
Upstream Views Physical Dimensions: Is there any water present at this view? yes
 If so, is there an obvious current? no

Select one of the following channel features:

	% of Channel Feature				
Riffle	36				
Run	0				
Pool	64				

Downstream View's Physical Dimensions: Is there any water present at this view?

If so, is there an obvious current?

Substrate:

% Cobble	% Gravel	% Sand	% Silt
71	15	0	14
% Mud/Clay	% Bedrock		
0	0		

Aquatic Vegetation: (Note amount of vegetation or algal growth at the assessment site)

Water Characteristics

Odor	Sewage	Musky	Chemical	None	Other
Color	Clear	Green	Gray	Milky	Other
Bottom Deposit	Sludge	Solids	Fine Sed.	None	Other
Surface Deposit	Oil	Scum	Foam	None	Other

Data Sheet C: Cross-Sectional Depth Measurements (for estimation of median depth)
(Median Depth Shown in Bold)

Site # 2

Mark # 33

0948_Tributary to Strobel_Cole

	Depth (m)
Transect 1	0.05
Substrate:	0.05
gravel	0.10
Water Clarity:	0.20
murky	0.15
Channel Feature:	0.10
pool	0.10
Channel Width:	0.10
4 yards	0.05
0.10	0.05
Transect 2	0.05
Substrate:	0.00
cobble	0.00
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.00
pool	0.00
Channel Width:	0.00
6 yards	0.10
0.00	0.15
Transect 3	0.05
Substrate:	0.00
cobble	0.00
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.00
riffle	0.00
Channel Width:	0.00
10 yards	0.00
0.00	0.00
Transect 4	0.10
Substrate:	0.20
cobble	0.15
Water Clarity:	0.20
murky w/ scum	0.15
Channel Feature:	0.10
pool	0.05
Channel Width:	0.05
4 yards	0.05
0.10	0.00

	Depth (m)
Transect 5	0.00
Substrate:	0.00
cobble	0.00
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.00
pool	0.05
Channel Width:	0.05
6 yards	0.10
0.00	0.10
Transect 6	0.00
Substrate:	0.00
cobble	0.05
Water Clarity:	0.15
clear	0.10
Channel Feature:	0.10
riffle	0.00
Channel Width:	0.05
3 yards	0.00
0.03	0.00
Transect 7	0.30
Substrate:	0.05
cobble	0.10
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.05
riffle	0.00
Channel Width:	0.00
3 yards	0.00
0.00	0.00
Transect 8	0.00
Substrate:	0.00
cobble/silt	0.00
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.00
riffle	0.00
Channel Width:	0.05
3 yards	0.05
0.00	0.00

	Depth (m)
Transect 9	0.00
Substrate:	0.10
cobble/silt	0.10
Water Clarity:	0.10
clear	0.15
Channel Feature:	0.15
pool	0.15
Channel Width:	0.15
5 yards	0.10
0.10	0.05
Transect 10	0.10
Substrate:	0.15
cobble/gravel	0.15
Water Clarity:	0.20
clear	0.20
Channel Feature:	0.30
pool	0.20
Channel Width:	0.20
5 yards	0.15
0.18	0.05
Transect 11	0.00
Substrate:	0.00
cobble	0.00
Water Clarity:	0.05
clear	0.00
Channel Feature:	0.00
pool	0.00
Channel Width:	0.00
3 yards	0.00
0.00	0.00
Site Median	Site Maximum
0.05	0.30

Field Data Sheets for Recreational Use Stream Surveys
Data Sheet B - Site Characterization
(must be completed for each site)

WBID 948
 Site # 3

Date and Time: 5/16/2007 17:03

Current Weather Conditions clear

Weather Conditions for Past 10 days: Rained on 5/10 & 5/15, 1 inch total

Drought Conditions? No

Site Location (e.g. road crossing) upstream portion of segment

GPS Mark: 34

Upstream Photo 73 Downstream Photo 74

Uses Observed (Uses actually observed at time of survey) Circle

Swimming	Skin Diving	SCUBA diving	Tubing
Water Skiing	Wind Surfing	Kayaking	Boating
Wading	Rafting	Hunting	Trapping
Fishing	None of the Above	Other	

Surrounding Conditions

City/county parks	Playgrounds	MDC conservation lands	Urban areas
Campgrounds	Boating accesses	State parks	National Forests
Nature trails	Stairs/walkway	No trespass sign	Fence
Steep slopes	None of the Above	Other	

Indications of Human Use

Roads	Rope swings	Foot paths/prints	Dock/platform
Livestock Watering	RV/ATV Tracks	Camping Sites	Fire pit/ring
NPDES Discharge	Fishing Tackle	Other:	None of the Above

WBID # 948 **Site #** 3
Mark # 34 **Dissolved Oxygen (ppm)** 5.7
Upstream Views Physical Dimensions: Is there any water present at this view? yes
 If so, is there an obvious current? no

Select one of the following channel features:

	% of Channel Feature				
Riffle	45				
Run	0				
Pool	55				

Downstream View's Physical Dimensions: Is there any water present at this view?

If so, is there an obvious current?

Substrate:

% Cobble	% Gravel	% Sand	% Silt
77	23	0	0
% Mud/Clay	% Bedrock		
0	0		

Aquatic Vegetation: (Note amount of vegetation or algal growth at the assessment site)

Water Characteristics

Odor	Sewage	Musky	Chemical	None	Other
Color	Clear	Green	Gray	Milky	Other
Bottom Deposit	Sludge	Solids	Fine Sed.	None	Other
Surface Deposit	Oil	Scum	Foam	None	Other

Data Sheet C: Cross-Sectional Depth Measurements (for estimation of median depth)
(Median Depth Shown in Bold)

Site # 3

Mark # 34

0948_Tributary to Strobel_Cole

	Depth (m)
Transect 1	0.00
Substrate:	0.00
cobble	0.00
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.00
riffle	0.00
Channel Width:	0.00
2 yards	0.00
0.00	0.00
Transect 2	0.00
Substrate:	0.05
cobble	0.05
Water Clarity:	0.15
cloudy	0.15
Channel Feature:	0.15
pool	0.15
Channel Width:	0.15
3 yards	0.05
0.10	0.00
Transect 3	0.00
Substrate:	0.00
cobble	0.00
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.05
riffle	0.00
Channel Width:	0.00
3 yards	0.05
0.00	0.00
Transect 4	0.05
Substrate:	0.10
cobble/gravel	0.15
Water Clarity:	0.25
cloudy	0.30
Channel Feature:	0.30
pool	0.30
Channel Width:	0.25
4 yards	0.20
0.23	0.10

	Depth (m)
Transect 5	0.00
Substrate:	0.00
cobble	0.00
Water Clarity:	0.00
clear	0.05
Channel Feature:	0.05
riffle	0.00
Channel Width:	0.00
2 yards	0.00
0.00	0.00
Transect 6	0.05
Substrate:	0.10
gravel	0.15
Water Clarity:	0.15
cloudy	0.20
Channel Feature:	0.15
pool	0.15
Channel Width:	0.15
4 yards	0.15
0.15	0.15
Transect 7	0.05
Substrate:	0.00
cobble	0.00
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.00
riffle	0.00
Channel Width:	0.00
4 yards	0.05
0.00	0.05
Transect 8	0.00
Substrate:	0.05
cobble/gravel	0.05
Water Clarity:	0.05
cloudy	0.10
Channel Feature:	0.10
pool	0.15
Channel Width:	0.10
5 yards	0.00
0.08	0.20

	Depth (m)
Transect 9	0.05
Substrate:	0.05
cobble	0.05
Water Clarity:	0.05
clear	0.05
Channel Feature:	0.00
pool	0.00
Channel Width:	0.00
2 yards	0.00
0.03	0.00
Transect 10	0.05
Substrate:	0.25
cobble	0.25
Water Clarity:	0.25
cloudy	0.25
Channel Feature:	0.20
pool	0.20
Channel Width:	0.20
2 yards	0.15
0.20	0.05
Transect 11	0.00
Substrate:	0.05
cobble	0.05
Water Clarity:	0.05
cloudy	0.00
Channel Feature:	0.00
riffle	0.05
Channel Width:	0.00
4 yards	0.00
0.00	0.00
Site Median	Site Maximum
0.05	0.30

Site 1

Downstream

Photo 69

WBID# 0948



Site 1

Upstream

Photo 68

WBID# 0948



Site 2

Downstream

Photo 70

WBID# 0948



Site 2

Upstream

Photo 71

WBID# 0948



Site 2

Roads

Photo 72

WBID# 0948

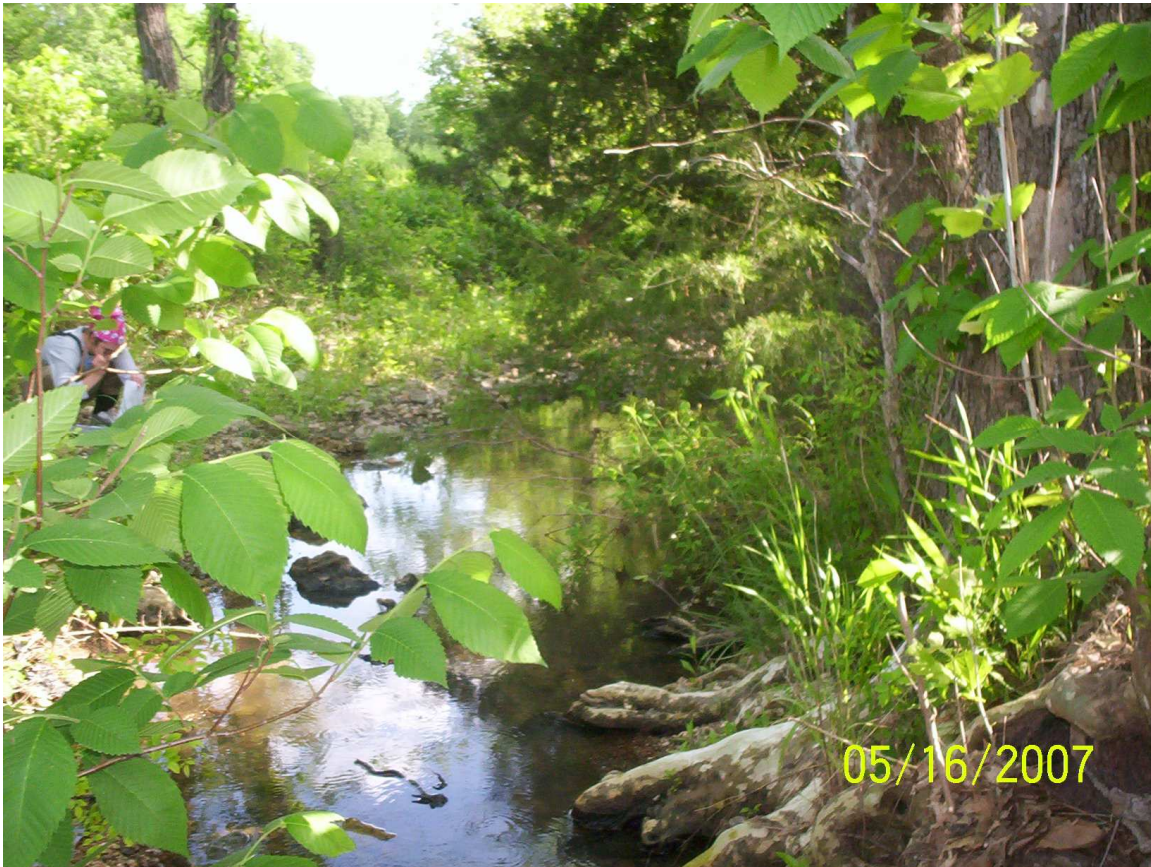


Site 3

Downstream

Photo 74

WBID# 0948



Site 3

Upstream

Photo 73

WBID# 0948

